Ind State Parks

SPRING MILL STATE PARK
HISTORY AND DESCRIPTION

Department of Conservation State of Indiana 1931



 Walnut paneled doorway of old stone mill (1817)—the wrought-iron rails to exclude meandering hogs. Posed by Miss Mary Hamer, great-grandaughter of Col. Hugh Hamer, long a proprietor of Spring Mill.

Spring Mill State Park A History and Description



By E. Y. GUERNSEY



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THE DEPARTMENT OF CONSERVATION
STATE OF INDIANA
DIVISION OF LANDS AND WATERS

The Department of Conservation

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Foreword

The nucleus of the present Spring Mill State Park is the Donaldson tract of 183.88 acres. The essential facts concerning this tract and the method by which the state acquired it are as follows:

George Donaldson, the owner of the tract, was born in Scotland in 1811. In 1860 or 1861 he migrated to the United From 1865 to 1883 he was a resident of Lawrence Between September, 1865, and August, 1876, he became the owner in fee simple of certain lands in Lawrence County. In 1883 he removed to Alabama and continued to reside there until 1896 when he returned to Scotland where he died intestate on September 17, 1898, leaving as his next of kin certain nephews and nieces and their descendants who were residents of Scotland. The question of the title to this land being in controversy, the court appointed a receiver in 1901 to hold possession of and care for the land, pending the litigation. In 1903 an act was passed resting the title to any escheated lands in Lawrence and Monroe counties in the board of trustees of Indiana University (Acts 1903, P. 152). However, the receiver appointed by the court retained custody of the land from 1901 until May, 1906, when the custody passed to the trustees of Indiana University. The question of the title of this land was before the supreme court on two occasions and decisions thereon were made in Donaldson vs. State (1906), 167 Ind. 553, and in Donaldson vs. State (1913), 182 Ind. 615, and the title to the lands were finally rested in the state. In the latter case, the act of 1903 was held to be invalid and by an act passed in 1915 (Acts 1915, P. 45), the Auditor of State was directed to sell this land to the trustees of Indiana University for the sum of \$4,000.00. While in the possession of the University, the tract was used for purposes of biological study and especially that of blind fish within the cave. This work for many years was conducted by Dr. Carl H. Eigenmann.

By an act passed in 1927 (Acts 1927, P. 735) the board of trustees of Indiana University was authorized to sell this land to the state for state park purposes for the sum of \$9,747.41 (Acts 1927, P. 735). Upon the completion of this transaction the land was placed in the custody of the Department of Conservation and set aside as a state park.

As the development of state parks progressed, sentiment in Lawrence County for the establishment of still another park became stronger and stronger. An understanding was reached with Indiana University to abandon the property for that purpose and a law was subsequently passed by the General Assembly of 1927 which turned over the Donaldson woods, the tract above mentioned, to the care of the Department of Conservation, provided that Lawrence County add at least 500 further acres to the holding. While the work of obtaining the desired lands was underway, consideration had to be given to a tract of approximately 310 acres owned by the Lehigh Portland Cement Company and lying in the heart of the desired territory. Additional value was lent to this particular area, not only by its wealth of stately trees and a number of interesting small caverns, but especially so on account of the remnants of a once flourishing pioneer settlement of which the large three-story grist mill was the outstanding feature.

In the autumn of 1927 the undersigned, together with Mr. Wm. H. Weitknecht, Superintendent of the Mitchell Plant of the Lehigh Portland Cement Company, went to Allentown, Pennsylvania, to interview General Harry Trexler, Chairman of the Board of Directors, and Colonel Young, President of the Lehigh Portland Cement Company, with a view of obtaining the property. General Trexler representing the company expressed his lively interest in the proposed enterprise and made himself practically spokesman for the State of Indiana and there and then turned over for \$1.00 the entire area, excepting only for his company the much needed water rights.

The park as it stands today, therefore, consists of 183.88 acres of the original Donaldson tract, 539 acres donated by Lawrence County, and 295 acres donated by the Lehigh Portland Cement Company, totalling 1,017.88 acres.

Spring Mill State Park is a rare, if not a singular opportunity, to bring back the past and visualize again the activities of pioneer days. From the beginning it was plain to us that mere park engineering and park development would not suffice. What was needed was the fine feeling, perfect imagination, if not a poetic conception of the ultimate goal. A man possessing to a very high degree these accomplishments, we found in the person of our first custodian and now the author of the following pages, Mr. E. Y. Guernsey.

Introduction

T IS ONLY within the last decade that Hoosiers have begun to take Indiana seriously. We have at length discovered that Dame Nature, insofar as we are concerned, has been vastly more liberal in her dispensations than most of us had dreamed of; and that we possess, as well, a most intriguing history—intensively involved in the life-story of the Nation itself. The importance of weaving our wealth of tradition and folklore into a definite fabric of literary record is a thing which, as yet, has escaped our really serious consideration. A certain age must be arrived at, it would seem, before a state may recognize the several elements which are necessary to create its desirable background of distinct individuality.

It is said of the State of Virginia that its people maintain slight interest in publicity directed toward selling its charms to the tourist; preferring to enjoy the consciousness of their overlaid tradition in the orderly fashion which is to be expected from the dignified maturity of the "Old Dominion." In the present stage of our own statehood we are just entering into this "consciousness," in which we recognize that indefinable "inner thrill" which responds to the recital of our sagas. the recounting of our deeds of valor, or a communion with the visible forms of Nature which surround us. We are yet in that transition stage, so to say, in which we have not quite found ourselves. We have that duty yet to perform more thoroughly to acquaint ourselves with the delightful Indiana which is, to enlarge our zeal in preserving our vanishing landmarks and traditions as they were—after arriving at which desirable consummation we must find ourselves infinitely better equipped to participate in those future events from which will be evolved the future destiny of the state.

In his delightful "Natural History of Selborne," Gilbert White has introduced us to a thousand wonders of Nature, and to innumerable bits of history—all of which have been derived from an intensive study of one diminutive area around an obscure English village. There is not one state park, in Indiana, in which it would not be possible to accomplish a like result.

Our diversified system of state parks has served as an admirable stimulus to our awakening interest in Indiana. We may even say, with justification, that the Department of Conservation has done more than any other agency to extend our knowledge of our own state.

In the pages which follow it has been the writer's desire to provide an introduction, and it is no more than that, to one of Indiana's state parks. The casual visitor, who devotes an hour or so to these interesting domains, may leave them almost as poorly off as when he came. For those more seriously minded individuals, whose appreciation of Indiana is in the awakened state, Spring Mill State Park, as well as the rest, will provide material for days of delightful communion with an everchanging sequence of impressions of Indiana's interest and charm.

How to Reach Spring Mill State Park

Spring Mill State Park is located two miles east of Mitchell, Indiana, which is in Lawrence County. The place is almost equidistant from Indianapolis, Indiana, and from Louisville, Kentucky, or, from Vincennes and Lawrenceburg, Indiana. In other words, it is in almost the geographic center of the southern half of the state. It is twelve miles south of Bedford, Indiana.

The park may be reached by way of the Monon railroad, from the north or south; or from the Baltimore & Ohio from the east and west. Bus lines enter Mitchell from Indianapolis, Louisville, Evansville, Vincennes and Seymour. Upon arrival at Mitchell, if one comes by train or bus, it will be necessary to taxi to Spring Mill, which is a matter of a few minutes' drive.

If one desires to reach the park by automobile, he should take State Highway 37, if coming from Indianapolis and the north. If coming from Louisville, or the south, one follows State Highway 150 to Paoli, thence north, upon State Highway 37, to Mitchell. These highways are paved for their entire distance. From the east or west one arrives over State Highway 50, which as this book goes to press is not entirely hard surfaced, though this is in process, and the highway is uniformly good. Route 50 enters Mitchell, directly, from the west; but from the east one follows it to Bedford, thence south to Mitchell.

There are, as yet, no hotel accommodations at Spring Mill; but one may conveniently spend the night at Mitchell, or Bedford. If one does not mind a longer drive it is possible to reach French Lick and West Baden, over an excellent paved highway, in half an hour. The distance is 23 miles. These noted resorts provide an interesting diversion for the visitor. A visit to the quarries and mills about Bedford, the largest in the world, may be included in one's visit to Spring Mill.

Meals may be had, in season, at the village tavern at Spring Mill. Desirable camping facilities have been provided, with stoves, tables, fuel, etcetera. The drinking water is excellent and abundant.



2. Donaldson Cave in Winter.

The Geology of Spring Mill

To understand the natural processes which brought about the structural changes in the earth's surface exhibited at Spring Mill it will be necessary to rob geology of its complexities of diction, and to reduce the story to simpler terms.

If one comes into this region from the north, east or south, there may be observed, at a point some fifty miles distant in each direction, certain towering hills of bluish-grey shale and sandstone. These are either outliers or integral parts of those mountain-ranges in miniature which we know as "knobs." Upon the earliest maps they are actually set down as mountain ranges. In the records of early travelers they are spoken of as "the banks." We may consider them, for the present purpose, as actual mountain ranges, and we shall find that, as we follow them southward, they increase in size and eventually become a part of the mountain system of Kentucky and Tennessee.

To the west of this mountain like formation, and merging into it, we discover a totally different topography. Here is a vast western sloping plain, or plateau, which extends from the vicinity of Greencastle, through Putnam, Owen, Monroe, Lawrence, Orange, Washington and Harrison counties—tollowing a general direction toward the southeast. Nor does it end at the Ohio—on the contrary, it broadens into an area of 2500 square miles in Kentucky, as against approximately 1200 square miles in Indiana. This widely extended plainal area is known to geologists as the Mitchell Plain, and has been so-called because of the fact that, near Mitchell, Indiana, the true character of the plain is best apparent.

Let us remember that, in its original state, the entire area had much the appearance of the prairie regions with which we are familiar—with this difference, however, that below surface there existed a succession of rock strata, hundreds of feet in thickness. Surface changes, due to erosion, have altered the former plain to a succession of hills and valleys. Thus we have left very few remnants of the former plain, and these are dissected by stream channels of varying size.

The upper four hundred feet of underlying deposit has received the name of Mitchell limestone—thus has the town of Mitchell, contiguous to Spring Mill, contributed its name both to the plain itself and to the interesting rock formation which caps it. Within the area included in the Mitchell plain one finds the largest, as well as the most complex and interesting subterranean drainage system in the world.

In the early days of geologic research, when the headquarters of the United States Geological Survey were at New Harmony, Indiana, David Dale Owen, its chief, conducted the first systematic research in respect to this region of wonders. It was found that the cave-bearing stratum, now known as Mitchell limestone, but then as cavern or mountain limestone, extended through the entire cavern region of Indiana and Kentucky. This, of course, we know to be true today.

What an appalling exhibit of underground streams and stupendous caverns are comprised in this area, which includes the two largest caverns in the world, and to which may be added probable thousands of lesser magnitude. If we were enabled to look below surface we should discover countless miles of subterranean chasms, with an intricate maze of connecting channels.

The Mitchell limestone group is composed of alternate layers of very hard and very soft limestone and shale, separated laterally and vertically by joints and bedding-planes, which latter term means, simply, the break between successive limestone deposits. At the base of the Mitchell limestone is the massive limestone deposit, singulary free from joints or fissures and sometimes fifty feet in thickness, which is quarried under the name of "Indiana Limestone." In geologic nomenclature it is known as Salem limestone.

Percolating surface water, during ages past, has found its way into the crevices of the upper limestone layers, continuing its downward path through each crack and seam. Because rain water contains carbonic acid, it sets up an immediate chemical action upon the limestone, which is calcium carbonate. The result is the creation of calcium bicarbonate, which is a solution. This solution having been drained away, by slow degrees, the upper limestone layers disintegrate, and a depression known as a sink or swallow hole appears at the surface. These serve to collect the surface water in increasing quantity.

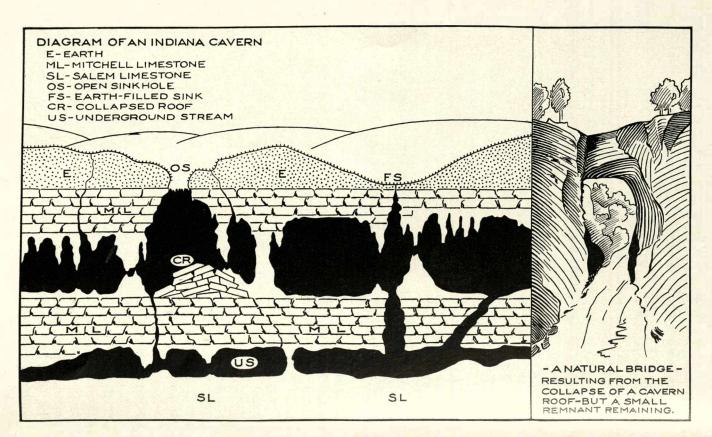
In the end, underground streams are set up along the bedding planes beneath. It is important to remember that chemical action, and not erosion, are responsible for most of the disintegration necessary to cave formation.

When an underground stream has developed to considerable size, as when it is fed from a series of sink holes, or water-bearing reservoirs, the erosive force of water does take a hand, in that it carries along in its current loosened fragments of rock which, in flood time, are churned about in rock depressions, which they enlarge through their abrasive effect. Many of these circular pot-holes, or "mills", may be observed in the central avenue of Donaldson's Cave.

At Spring Mill, as in perhaps no other similar area, it is possible to study the entire range of cavern-forming processes and results. It will be desirable to bear this in mind, and if the visitor is really interested, to follow the successive paragraphs closely.

It may be said, at the ouset, that Lawrence County, alone, possesses some hundreds of caverns of more or less consequence. The adjacent county of Orange, also, is in the cavern area. In the latter county, however, caves are less numerous. This is the locality of Lost River, that strangely elusive stream which occupies underground and surface channels by turn, changing these in accord with an increased or diminished rainfall. It is probable that drainage in the northern half of Orange County is affected almost exclusively through subterranean channels, and it is also probable that the source of the streams which find their outlet in the numerous caves of Spring Mill park will be found in that quarter. For many years it has been observed that heavy rainfall at the source of Lost River and Stamper's Creek have a direct effect upon the water volume of the Spring Mill streams. It is possible, moreover, to follow the surface sinks of this area for some miles, in a southeasterly direction, into Orange County.

If one follows the highway which forms the south boundary of the park it will be seen that the earth's surface appears to have been folded to produce a veritable "roller-coaster" effect in the road surface. This has come about through the collapse of the upper limestone strata. While sink-hole phenomena may be observed at numerous points within the park area, and along its southern boundary, the most elaborate development



will be found beyond the east park-line, as one turns north upon the highway leading to Lawrenceport. Here the earth's surface appears as if subjected to persistent bombing in some military engagement. This sinkhole area has doubtless contributed to the formation of the east branch of Donaldson's Cave, now a dry avenue.

Along the various trails within the park one finds sinkholes of varying type, from the basin-like form to that in which the entire rock stratum has collapsed, leaving the underground stream channel exposed. Such collapses frequently occur with slight warning. Particularly along Trail 3 one may observe very small holes in the earth's surface, possibly only a foot or more in diameter, which comprise slender vertical shafts, often of great depth, leading to a subterranean stream below. In some of these shafts fish have been caught on hook and line.

When the superimposed rock mass is of sufficient thickness to withstand great sub-erosion, an extensive cavern is formed. This may be developed as a single avenue, or it may extend into a complex maze of connecting passages. Such channels may be wet or dry, depending upon whether the contributive stream has maintained its course, or has been deflected by roof collapse, or by penetration to a lower channel.

If the roof structure above an underground stream is weakened to the point of collapse a portion of the stream is exposed, sometimes for a considerable distance. Such phenomena may be observed at Twin Caves. Again, as in the case of the great Natural ridge, in Virginia, but a small remnant of the original cavern roof has remained intact. As one drives over the road which overlooks Donaldson Cave he encounters such an exhibit. In this case, however, the collapse on the south side of the road has not been completed, and appears. on this side, as an enormous sinkhole.

The formation of stalactites, and stalagmites, though of considerable interest, will be simply touched upon here. The former is the upper formation, while the latter is built up from the overplus of lime-charged water discharged from the stalactite. It often happens that stalactite and stalagmite meet, to form a column or pillar—sometimes of enormous size. Stalactites, which assume most intricate and beautiful form, are begun as diminutive quill-like formations, successive deposits of lime impregnated water building them up, sometimes,

to unbelievable proportions. The helectite, which is a diminutive and grotesquely distorted stalactite, is of rare occurance. All of these stalactitic forms are to be encountered in the Spring Mill caverns, where they may be studied at the leisure of the visitor.

The Animal Life of the Caves

For all of a century the caverns of Spring Mill have received visits from notable scientists of this country and from abroad. From New Harmony, during its golden age, came Lesuer, Troost, Say, Rafinesque, and the Owens. Among the first studies of the faunal life of the area were those of Packard and Cope. In 1859, the first serious attempt to survey the geologic resources of the state was authorized, under the direction of David Dale Owen, with his brother, Richard Owen, as assistant. The latter, an artist of considerable ability, contributed the series of quaint wood-cuts of the cavern region now highly prized by collectors.

In 1880, Prof. H. C. Hovey included an account of his visit to this locality, undertaken in 1854, in his "Celebrated American Caverns."

As recently as 1929, the caverns of Spring Mill have served as collecting grounds for material for foreign museums, at which time Dr. Jeannel, of the French National Museum, and Dr. Pieltain, of the National Museum of Spain, visited the locality.

Without question, the most valuable contribution to our knowledge of cave life is that of Dr. Carl H. Eigenmann, long connected with Indiana University. Born in Germany, Dr. Eigenmann came to America at the age of 13, was reared by an uncle in Rockport, Indiana, entered Indiana University at the age of 18; later to become the recognized leading authority on the cave vertebrates of North America. The story of his twelve years of research at his experimental station at Donaldson's Cave is as fascinating a recital as may be found in the annals of nature-study. It is comparable, only, to the patient research of Fabre.

"The Cave Vertebrates of North America," with a sub-title of "A Study in Degenerative Evolution," was published, in 1890, by the Carnegie Institution. It is an elaborate volume of 250 pages, with numerous elaborate plates. In the following paragraphs the writer has endeavored to summarize, in less technical language, the conclusions arrived at by Dr. Eigenmann.

In 1890, Dr. Eigenmann determined to begin a systematic study of the blind fish of the area included in the Mitchell Plain. His laboratory, at Bloomington, he thought ideally located for experimental purposes; but in spite of the fact that he paid numerous visits to the caverns of Indiana and Kentucky, especially to those from which blind fish had been reported, none were found until 1896. In May, of that year, he was again looking for blind fish—this time east of Mitchell, Indiana; which, as he says, "is a region drained by underground streams, several of which find their exit in caverns of romantic beauty, in the escarpment flanking White River." Within sight of the lower spring at Dalton's Caves, he found two blind fish swimming in a quiet pool. His six years of search were ended, and he found the stream which, in its varying reaches, furnished him with an unlimited supply of specimens. More blind fish were found here, he relates, than in all other localities put together. As a warrant to this statement it may be said that, in a recent excavation of the collapsed entrance to Whistling Cave, actual hundreds of these fish were carried away by the liberated stream.

This discovery determined Dr. Eigenmann to set up an experimental station upon the Donaldson tract, which was acquired by Indiana University upon the death of Mr. Donaldson. Here he erected a rude shack which served as residence and laboratory. Within the gorge which fronts the entrance to Donaldson's Cave, and within the west avenue of that cave, one may observe the culture basins which have been erected by Dr. Eigenmann and his associates. Here, in addition to his study of the animal life of the underworld, he took daily temperature-readings, over a period of years, of both the water and air of the caverns. He found the average temperature of both to be around 54 degrees, with slight difference between that of air and water. Higher temperatures, of short duration, were brought about by heavy rainfall. Then unexpected

rises in the streams occurred, often bringing them to a level with the cavern roof, at which times it was necessary to seek sanctuary in the outer world.

In respect to the probable age of American caverns he quotes Shaler's opinion that they began their existence some 750,000 to 2,000,000 years ago. Our present knowledge of geology would serve considerably to reduce this estimate.

In commenting upon the length of various caverns, which one knows to be consistently exaggerated, he quotes Blatchley's measurement of Marengo as 0.07 of a mile, and that of the main channel of Wyandotte as 4.21 miles. The Mitchell caves he records as being tracable for somewhat more than two miles, with other passages unexplored.

General statements in respect to animal life within cave darkness will be found interesting. Large blind forms, he says, are impossible; because these could not escape their enemies. No large cave-frequenting animals are blind; nor have such permanently taken up their abode in caverns. All vertebrates, however, except birds, have members born blind, or subject to acquired blindness. Bats, which are twilight animals, but have minute eyes, do not depend upon their eyes to secure food. They fly by night because their food is then abroad. Many, if not all the bats in this region, winter in caves. A small number spend only the day there. They do not secure much, if any, of their food in caves, and simply use them as shelters—in a much more systematic fashion than bears do.

There are no blind birds, and there are no birds which permanently live in caverns. There are no cave repitles, nor do reptiles temporarily enter caves for shelter, as do mammals. There are numerous blind lizards and snakes, however, which are of the ground-dwelling type, and burrow in the earth. Dr. Eigenmann states that he has never seen a snake within a cave, nor has the writer, in many years of cave experience.

There are blind salamanders which inhabit caves, and there are cave-inhabiting varieties which are not blind. The coral salamander, Spelerpes, is found abundantly in this vicinity, and from Donaldson's Cave some of the largest examples have been taken. These, though they possess eyes, will probably eventually lose them. For purposes of record it may be noted that, in the rock debris removed from Whistling Cave, a small black salamander was found in great numbers. At least hun-



4. Spring Mill village, looking south, showing reconstruction under way.

dreds, and probably thousands of these were carted away by the workmen.

Many cave animals have eyes, and good ones; but cave animals with degenerate eyes are somewhat common.

Although the caverns of Spring Mill park are unusually well supplied with representative cave-dwelling creatures, it is convenient to say, briefly, that they include the blind crawfish and other smaller crustacea; and, among the insects, the cave beetles, crickets, spiders, moths and flies. The blind crawfish, it is well known, are white—while the insect forms are much lighter in color than those which live in the open.

Biological research has been carried on at Spring Mill for many years, and is still conducted by the faculty of Indiana University. Among the workers in this field have been Dr. Fernandus Payne, Dr. Will Scott, and others. The latter's study of the "plankton" of the caves has been exhaustively carried out. Plankton, it is interesting to know, comprises the "floating population" of streams—the aquatic fauna which swims or floats upon the surface, never resting upon the bottom.

Dr. Eigenmann's research centered upon the "blind fish par excellence," as he says, the Amblyopsis. The characteristics of this ghost-like creature, whose name really means "dim eyed," will be noted as a conclusion to our discussion of cave fauna.

The Blind Fish Par Excellence---The Amblyopsis

In appearance, Dr. Eigenmann describes the Amblyopsis as resembling nothing so much as "a skinned catfish, swimming upon its back." Its color is usually spoken of as a "ghostly white," but, in reality, it is a delicate pink. The color is derived through the show of blood-color, which is seen through the translucent and slightly iridescent skin. While swimming in the water it appears white, as it does when seen at a distance.

In size, the fish is not large. It has been known to arrive at a length of $7\frac{3}{4}$ inches—though one of $5\frac{1}{2}$ inches is rather larger than the average size.

Characteristic of the species is the fact that the anal opening and oviduct are placed quite near the head, though in the very young they occupy the normal and usual position. The eggs, which are quite large and are about 70 in number, are deposited within the gill-chamber—where the young remain until they are able to lead a separate existence.

It has been determined that the fish is permanently bleached, so that individuals reared in the light do not change color. It is, it has been found, hereditarily blind. If reared in the light, even through repeated generations, it may never become a seeing animal.

The bleached condition, as well as the loss of sense organs, are the result of an individual hereditary adaptation, which is transmissable, and becomes hereditarily fixed.

The originals of non-aquatic cave-dwelling species were probably already adjusted to life in the earth long before caves were formed, and the ancestors of blind fishes doubtless lived in the shade, and under rocks, and the blind fish of this region, if placed in the open, still has this habit.

A sun fish, or other fishes which depend upon their eyes to secure food, may never become adapted to cave life, and die when kept in the dark. The cat fish, on the contrary, is not so dependent, frequents the dark recesses of streams, and is already a candidate for cavern existence. There are, in fact, blind, cave dwelling cat fish, and it is surprising that there are so few blind varieties of this fish. The prime requisite, then, for cavern existence, is a negative reaction to light.

Being blind, one must discover how the Amblyopsis is enabled to secure food. This he does, solely, through the sense of feeling—the tactile sense. For the purpose Nature has provided this otherwise handicapped creature with an exquisite arrangement of sense organs, known as tactile ridges, which appear about the head. These serve to inform the Amblyopsis of any disturbance in the water, and it is thus able to swim directly to the source of such disturbance, in pursuit of such small animal forms as may frequent the water. Because of the location of these tactile ridges upon the head, the Amblyopsis is not so sensible to movements behind it; but may swim quite accurately in all other directions.

Though this unusual fish possesses well formed ears, it is apparently as deaf as it is blind, and no sound appears to dis-

turb it in the least. Even the sense of taste seems to be absent, or so feeble as to appear so. Thus, one may give the fish such small objects as tiny cotton pellets, which it will swallow instantly, but will immediately expell from its mouth. Beef-juice, dropped upon the mouth of the fish, produces no more taste reaction than so much water.

Of the many experiments in respect to a preference for certain colors, and of others which involved the severance of certain organs, it is not necessary to speak. It is sufficient to say that, here at Spring Mill, the untiring patience of the biologist is splendidly illustrated, where more than a decade of a valuable life was devoted to the study of one diminutive, and hitherto little known creature.

The Archaeology of Spring Mill

The White River region, in which Spring Mill is included, offered a very desirable, if not an almost unsurpassed situation for the simplified existence of the Indian. When first visited by the French, who ventured into its fastnesses from old Fort Saint Vincent, the stream was found to be obstructed by accumulated driftwood, which rendered navigation by pirogues exceedingly difficult. Because of this peculiarity of the stream they applied to it the suggestive French name of Embarrass, which means, as may be implied, an impediment or embarrassment to easy access. The Miami, who were familiar with this characteristic of the stream, called it On-gwahsah-ka, which means precisely what Embarrass does in the French. In the Pioneer nomenclature the stream became the Driftwood River, which name is still occasionally applied to it. The Delaware, who had very early villages along the stream, referred to it as the Gunaquot, which is to be interpreted as meaning "a long stream." At the mouth of White River was the former extensive village of the Delaware, destroyed in 1799, bearing the unspeakable name of Minsimimeechhani— "the stream where the Delaware live."

In Lawrence County the tributary streams were, and are, fishing streams of the first quality. Fishing Creek, which is

contiguous to Spring Mill, bore the Indian name of Nameshanni, which had the same meaning as the English name now applied to it. At the mouth of Guthrie's Creek, when first visited by the Pioneer, there might be seen a much used portage and trail, the latter of which passed near the boatyard of Spring Mill village. At the portage, and along this trail, were notable Indian villages, the remains of whose workshops indicate a long continued residence in the vicinity. Stone implements, pottery, and work-shop debris are still found here in considerable quantity. Within the north-east section of the park was one of these apparently related villages, and many exhibits of their occupation have been discovered there. At other locations within the park one may find scattered flint and stone implements, usually near some exposure of chert from the Mitchell limestone from which the arrow-making material was quarried.

At Donaldson's Cave, as at other caves in the county, it was formerly possible to discover accumulations of animal bones including those of the deer, bear, wild-turkey, etcetera, mingled with the very primitive type of stone and bone implements used by the aboriginal Nimrod. Prof. John Collett, in the geological report of 1873, has recorded the information that "Donaldson's cave shows signs of prehistoric occupation, as flints, stone axes, and bones have been found in and around the mouth in great numbers." This statement was doubtless responsible for an investigation conducted by the Smithsonian Institution, some twenty years ago, under the direction of Mr. Gerard Fowke. Prof. Collett also notes, in his report, that "about the year 1800 gunpowder was here made from the great supply of nitrous earth in the upper chambers of the cave, remains of the powdermill still being visible." This statement, it would seem, would serve to discount the probability of successful exploration, as little of the former deposit would have been left undisturbed. It is said, however, that Mr. Fowke's exploration was in a measure successful.

It is not possible, at the present time, to arrive at definite conclusions in respect to the tribal identity of the aboriginal occupants of Spring Mill. The area was formerly occupied by the Piankeshaw, who came into it from the region about Vincennes, and have left mementos which must be attributed to that tribe. The Shawnee, too, were early occupants—as evi-

denced by their peculiar form of burial. The Delaware are known to have had extensive villages along the streams of this region.

It is to be expected that the area about Spring Mill would attract primitive man, as it did the early explorers of white blood. It was ideally located for an abode where sustenance was to be obtained from forest and stream. Here wild life was most abundant, and in addition to the usual food supply of the forest the extensive cavern development provided an abode for the larger animals of hibernating habit. It is doubtful whether any similar area in Indiana, in an early day, possessed a greater diversity of wild life than this particular region. Even today the animal population is much more numerous than the casual visitor would suspect—what it must have been in its primeval state one may only imagine.



5. Entrance road to Spring Mill Village showing on left restored cabin formerly used as hat shop.

The Murder of Pierre

In the early settlement days of Spring Mill two log forts provided protection against Indian attack. One of these, known as Maxwell's Fort, was southeast of Spring Mill, in the present Northeast Township, of Orange County. The other, to the northeast, was first known as Flinn's Fort, and later as Leesville.

Of the resident Indians, who had camps upon Fishing and Lick creeks, the settlers had nothing to fear. There were, however, two renegade Indian brigands whose depredations were a constant menace. One of these was Saw-Amochk, or Yellow Beaver, an outlawed Delaware. The other was Missilemetaw, a Shawnee, the more bloodthirsty of the two. The former was the leader of the massacre and abduction of the Huffman family, near the present Clark County State Forest. The latter was the instigator of the Pigeon Roost massacre, in the same vicinity.

Near the mouth of Mill Creek, and within sight of the old boatyard of Spring Mill village, lie the mortal remains of Pierre. About Pierre little is now known, except that he was a very resourceful trapper and trader of French-Indian blood, who had come into the region from about Vincennes, occupying a rude cabin near the mouth of Guthrie's Creek.

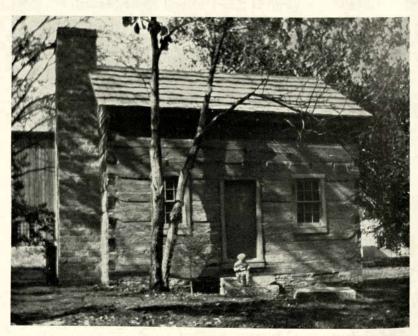
In the Summer of 1814, Joseph Rawlins, and his nephews James and Roderick, were engaged in attending a crop of corn along White River. They occupied a small log cabin, which contained all their worldly possessions, while the women of the family had been removed to Maxwell's Fort for their better protection. The Rawlins men, who were members of Capt. John Bigger's company of Mounted Rangers, were prepared to respond to an alarm at a moment's notice, tethering their horses and taking their arms with them into the fields.

In searching for their horses, one morning, they discovered that they had been stolen. Upon returning to their quarters they found unmistakable evidence that the place had been visited in their absence. They made immediate preparations for their safety, building no fires during the ensuing night, and sleeping in the open. Upon the following morning they

started for the fort, meeting Pierre upon the way, where he was enroute to visit his traps along Fishing Creek. They warned old Pierre of his danger; but were assured by him that he was well acquainted with Indian tactics, and could be depended upon to take care of himself.

After arriving at the fort, the Rawlins borrowed horses and proceeded to Capt. Bigger's headquarters, at Charlestown. Here they secured reinforcements, and the company returned to the Rawlins settlement. Here they found the cabin in ruins, and everything of value carried off. Upon searching for Pierre's boat, it could not be found. Continuing down the river, they discovered it, almost hidden in the branches of a tree which had fallen into the stream. In the bottom of the boat was the body of Pierre, who had been shot through the heart, tomahawked and scalped. How he met his death was never known.

They provided a rude coffin of interlaced bark, in which they wrapped the body, and removed it to the brow of a hill, overlooking the river, where it rests to this day.



6. Munson House reconstructed on its original foundation.

The Massacre at Leesville

Upon the night of November 7, 1811, which was the precise date of the Battle of Tippecanoe, the Flinn and Guthrie families arrived at the present site of Leesville. Here they were to establish the first consequential settlement in Lawrence County.

One of the first concerns of this small band of emigrants from Virginia and North Carolina was the erection of a substantial fort against the almost certainty of Indian attack. Both families had been associates of Daniel and Squire Boone, had removed with them into Kentucky, and were inured to the dangers of frontier life. An appropriate site was chosen, near an adequate water supply, and the business of felling logs for the structure was immediately attacked. Within the fort these two families, numbering a score or more took up their residence.

From the outset the settlement was subject to frequent alarm, and to this fort, at the first anticipation of danger, came other settlers of the region. The culmination of many months of constant vigilance, interrupted by frequent Indian forays, resulted in a sudden attack upon the settlement, the date of which (as it appears in a letter from Gen. John Tipton to Gov. Posey) was March 13, 1813.

Upon that day the men of the two families were engaged in felling a tree, a quarter-mile from the fort, in order to secure clapboards for roof repair. As the tree was falling, and without any warning, they were immediately surrounded by Indians—in such number that it was impossible to escape. At the first volley from Indian rifles John Guthrie was shot through the breast, the bullet imbedding itself in a nearby tree. A moment later Josiah Flinn was tomahawked and scalped, his skull crushed at the first blow; while Jacob Flinn, a mere youth, was bound hand-and-foot and tied to one of the captors' horses.

At the first alarm Elizabeth Flinn Guthrie, wife of the wounded John, ran out from the fort. Her husband, whom the Indians believed mortally wounded, was able to stagger to his feet and attempted to escape to the fort. In the face of fire



7. The "Granny White" house, erected on the site of the Leesville massacre by Sally (Cummins) White, 1824. It served in lieu of a block-house in Indian alarm, as an early tavern, and figured in many events connected with the early history of Southern Indiana. Removed from Leesville to Spring Mill for its preservation.

from the retreating Indians, who feared an attack from the fort, Mrs. Guthrie ran to her husband's assistance, and by almost super-human endeavor dragged the wounded man to the door of the fort. It is doubtful whether a more heroic act has ever been recorded than that of this pioneer woman of twenty-five.

During the following night rain fell in torrents. To the panic stricken family within the fort the night must have seemed an age. At daybreak the family ventured to the scene of attack. Here they found Josiah Flinn still alive, though unconscious. There was no possible hope for his recovery. Young Jacob Flinn could be nowhere found. While the Indians had endeavored to carry off all the horses of the settlement, one had been overlooked. Upon this John Flinn, a mere boy, set out to secure a doctor, riding to Salem, a distance of thirty miles. He returned with Dr. Lamb, who, following the surgical practice of the day, drew a silk handkerchief through Guthrie's wound. After many weeks of suffering, Guthrie at length recovered.

Jacob Flinn was conducted by his Indian captors to an Indian village on the upper Wabash. During the journey he was compelled to walk, carrying an iron pot over his head to prevent his observance of the route followed. During his incarceration in the village he was kept under strict surveillance, and was beaten and almost starved. It was evident that the intent was to exchange the prisoner, along with the scalps they had collected, for British specie.

Young Flinn, who was a true pioneer, considered various modes of escape. When asked if he could paddle a canoe, and was given one for trial, he allowed it to go around in circles, pretending to an ignorance in the art. Thereafter there were opportunities for a possible escape, but the youth preferred to defer his escape until he could obtain possession of an axe, stolen during the attack, which he deemed too valuable to surrender. This, one night, he recovered, and while his captors were asleep took possession of a new canoe which was tied close by. After drifting down the Wabash till he considered it safe to speed his course, he continued the journey down the river, subsisting upon roots and herbs, and upon frogs which he captured. After infinite hardships, his weight reduced to 70 pounds, his almost lifeless body was lifted from

the canoe, at Vincennes, where he was cared for by people of that settlement. He was given a horse, and a suit of clothes, and eventually arrived at the scene of his abduction.

It is possible, through a perusal of certain letters of the period, to obtain additional light upon the Leesville attack. It is sufficient to say that it was unquestionably the part of a plan to terrorize the residents of southern Indiana by a series of such attacks, all of which were under the leadership of Wisaw-Amochk, the Yellow Beaver. The Leesville massacre occurred two days prior to that of the Huffman family, in Clark County, which localities were connected by a long established trail. The records of the pursuit of the perpetrators, by Capt. Tipton, and others, most interesting to the student of Indiana history, may not be set down here.

The Historic Background of Spring Mill

Spring Mill State Park, through a happy combination of circumstances, provides a very definite cross-section of the Southern Indiana of pioneer days. Its forested area comprises just such primeval woodland as was encountered by early explorers in this region. Its restored village will enable the visitor to visualize a typical settlement of the early nineteenth century as it actually existed—revivified in the degree that one may comprehend the minute details of pioneer life as exemplified during the period of Indiana's first settlement. A close adherence to historic fact is being maintained in the rehabilitation of Spring Mill Village, and the results so far attained have been accomplished through intensive local research-fortified by an earnest study of the events which served to connect it with the "action" of the period. In visiting Spring Mill it will be appropriate to look beyond its environs, and to consider the village and its setting as a type of many another Southern Indiana settlement of the pioneer period, each having its individual share in the evolution of our statehood; yet each deriving its origin from a common source.

We have recently learned many intriguing things concerning the genesis of Southern Indiana—the chief of which involves most of the others. While it lies north of the Mason-Dixon line, and in avowed Northern territory, it is, in strict fact, a veritable transplanted South. The proof is by no means obscure.

It may be assumed that most of us know that Indiana formerly constituted a part of the territory held by Virginia during which period at least feeble attempts were made to colonize the region along the Ohio. Research in recent years has served to enlarge the importance and scope of these colonizing activities; but, whatever this may have had to do with future events, it paved the way, unquestionably, for the larger Southern migration which followed.

When one crosses the Ohio and sets foot upon Kentucky soil, he has come into the South as surely as if he were in Atlanta or Mobile. Louisville is more typically southern, possibly, than either of these cities. In the early settlement days of Kentucky and Indiana two main migratory-routes provided ingress to the wilderness country about the Rapids of the Ohio. Upon the down-current of that stream floated those grotesque "arks", the "keel boats" of the pioneer, bearing cargoes of human freight from its upper waters. Most of these migrants, it may be learned, were from Virginia. Over the Wilderness Trail, in ever increasing numbers, came the "horse-caravans," even travelers afoot, from the Clinch and Yadkin country of Virginia and North Carolina. Of the latter, many established a residence in the interior of Kentucky: but the journey's end, in either route, became that group of nondescript villages about the Ohio rapids, representing, then, the western outpost of civilization. The "Falls Settlements," after having absorbed their modicum of the influx, sent others to join the sparse settlements in the "back country" of Kentucky. Other adventurous souls pushed westward along the Ohio, or trekked northward, along the Buffalo Trace, into the wilderness of Southern Indiana.

It is interesting to note with what tenacity racial customs cling to a people. In architecture and its allied crafts, in the domestic arts—even to that which pertains to the preparation of food—it is possible to trace the origin to some former environment—generations removed from the present day. Thus, in the remote settlements among the Southern Indiana hills, one may imagine himself translated to the mountain region

of North Carolina. One may observe, here, the same log structure serving as a home, within the open fireplace of which food is prepared after the manner of a century ago. Life, here, is altogether primitive, and customs are unchanged. We may discover, even, the presence of such lingering mountain evolved superstitions as that "to kill a lizard will result in the drying up of one's springs", or, that "to look persistently at a yellow caterpillar will, of a surety, bring on a chill." Among these kindly folk charity and human kindness still remain as cardinal virtues, and one is led to conclude that intensive civilization has developed certain weaknesses of fabric.

In the older county-seat towns one may still find rare old buildings (which by God's grace have been left to us) whose



8. Cuthbert Bullitt, of Virginia. Founder of Spring Mill village. Born 1774—died 1825. From an oil portrait by Matthew Jouett, circa 1808, a pupil of Gilbert Stuart and son of Capt. Jack Jouett, the "Paul Revere of Virginia". Original owned by Hugh K. Bullitt, Louisville, Kentucky.

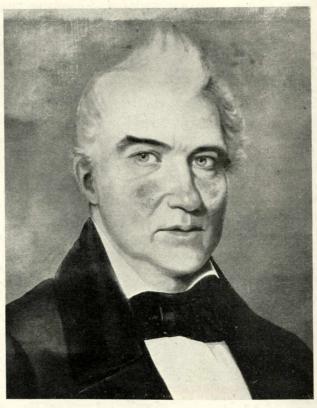
inspiration has proceded from some stately structure of Old Virginia. It is said that the pleasing cornice-design of the Paoli courthouse has been adapted from Jefferson's Monticello residence. Be that as it may, it is certainly true that most of our early Southern Indiana courthouses, those which existed before the advent of the horrific "Victorian" structure, were characteristically southern in design. The counterpart of a certain carved mantel in the old Corydon capitol may be observed in many early structures along the length of the Wilderness Trail, and may be traced into Virginia itself. The same may be said of the furniture of Indiana's "Pioneer" period, or of the ornate door-ways still occasionally met with in Southern Indiana and Kentucky.

If further confirmation were needed, one may compare the monuments of our early cemeteries with those of like period in the South—in which the typically delicate "motif" of the Adam brothers is seen to have shared in the characteristic individuality of treatment of the southern artisan. It is a rarity, as well, to discover an early local monument upon which a Virginian or North Carolinian locality is not inscribed.

In Southern Indiana, then, even though a century and more have elapsed, one may still come into daily contact with the mementoes of its period of first settlement. We who have become accustomed to our surroundings do not detect the "idiom" of the south which still clings to us; nor the hospitable approach with which a stranger is met. The dealer in "men's wear," who is dependent upon Louisville markets to supply those long-limbed and slender-waisted trousers known to the trade as "Southern sizes," does not in the least realize that so lowly a thing as a man's nether-garment may indicate somewhat of his racial abstraction.

Insofar as Lawrence County is involved in the history of Spring Mill, it may be said that, of its pioneer population, ninety percent were of Virginian and North Carolinian origin—the which may be ascertained through a thumbing of certain musty pages which constitute the entry-record of the county's first landed proprietors.

What Indiana is today has depended, of course, upon what it was yesterday. The evolutionary processes of statehood, in which are discerned the cause and effect of our present cultural situation, are not without interest to the casual citizen. To those who have a penchant for the finer details of ethnology, or who possess a canny instinct in the pursuit of unfrequented literary bypaths, Southern Indiana will be found pregnant with source-material of the rarest quality.



9. Hon. Hugh Hamer, for many years proprietor of Spring Mill village. Portrait by Davenport, an itinerant artist, well known in Southern Indiana. Original owned by Ralph Hamer, Mitchell, Indiana.

The Restoration of Spring Mill Village

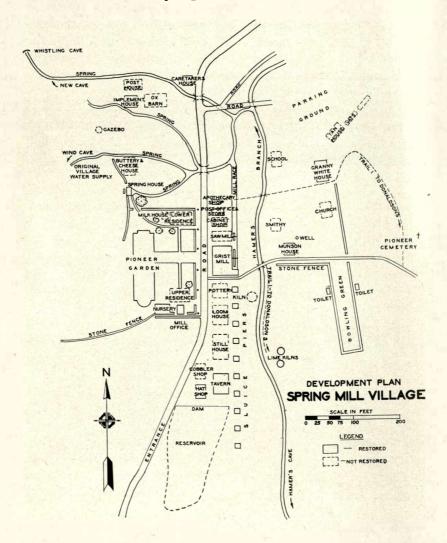
It is doubtful whether a more advantageous site might be found, anywhere, for the purpose of exhibiting the actual conditions under which the pioneer population lived and labored than in the delightful valley in which Spring Mill is being reconstructed. It would be possible, certainly, to restore hundreds of pioneer settlements with fair accuracy, if one were so inclined, but the natural setting of Spring Mill is at the same time beautiful and unique. Beyond this, its encompassing hills have so completely separated the spot from the outside world that no thought of the here and now may intrude itself upon the sensibilities of the visitor. The place is as primitive as it was a century ago.

Still other advantages, for rehabilitation purposes, are held by the site, not the least of which is the sound historic basis upon which the endeavor rests. Spring Mill actually existed, and its life-cycle involved so many years of changing customs, marking so many milestones in the growth of the state that one seems to follow these several stages intuitively. Even with these highly important perquisites admitted, the industrial element which entered into the scheme of things at Spring Mill has vastly enlarged its possibilities, for, otherwise, it would not have been possible to illustrate, so adequately, the almost forgotten crafts of the period. Add to this the proprietory element, in which we discover a village owned by individuals—and lastly the cultural contrast here exhibited.

One enters the valley of Spring Mill over a now improved road descending two or three hundred vertical feet, finding oneself surrounded by precipitous, wooded hills. Upon every hand are murmuring springs, and the voice of birds. It is beautiful, restful, and altogether primitive. So intriguing is the surrounding landscape, in fact, that visitors from a distance ask, invariably, why they have not formerly known of the existance of the place. It is both amusing and highly gratifying to discover that there are numerous folk who come to the village again and again, with no other motive, perhaps, than to absorb somewhat of the quiet and restfulness it affords.

Not only is the village being restored in a structural sense, with the entire complement of buildings to be included in the program; but it is to be vivified so that one may hear the clank of the loom, the whirr of spindles, and the splash of water over the ponderous wheel of the mill. The potter, it is anticipated, will indulge in this most primitive of the arts, and various of the other crafts will be exemplified.

A museum of any character is always interesting; but even a vast and inclusive display of pioneer material, such as is being assembled at Spring Mill, becomes much more instruc-



tive, and certainly more appropriate, when it becomes a part of the furnishing plan of the building in which it served its original purpose. This, in short, is the plan to be carried out here. Of necessity, the acquisition of the innumerable things necessary to a complete restoration is a slow and laborious process—particularly at this late day. They must range from the elegant to the simple, and from the gross to the diminutive object.

The series of lighting devices which are to be exhibited at Spring Mill is most complete, and include almost every type which antedated the use of modern illuminatives. The clock collection is one of the finest in Indiana, or perhaps elsewhere. A comprehensive collection of early pottery, china, and glassware will illustrate the various forms and designs of the early makers. Coverlets and quilts have been assembled for the purpose of exhibiting the great variety of patterns and colorings in use in the pioneer day. Of especial interest is the collection of early maps, upon which it will be possible to trace the beginnings of Indiana's enviable history, or the migration of one's ancestors to the state.

The pioneer garden, when completed, will comprise the shrubs, plants, and flowers of Indiana's first settlement days. Some of these are to be of real historic significance, through their former existence in the gardens of America's men of note. Along with the pioneer posies, many of whose names are delightfully quaint, one may find the "healing herbs," and those of culinary import, most of which have long since become memories.

A scheme of restoration as elaborate as this is may not be completed by the mere willing for it to be so. It involves much time, much study, much experimentation as to what is desirable and what is not—so it is not possible to arrive at the end of things in a month, or a year. The very evolution of the restorative process is interesting, however, and no visitor who has a proper conception of such things may fail in deriving a full measure of satisfaction from repeated visits to Indiana's pioneer village of Spring Mill.

The Story of Spring Mill Village

To arrive at a proper understanding of the conditions under which Spring Mill Village began its interesting career it will be necessary to imagine oneself translated to the "far away and long ago." This becomes less difficult once the visitor has entered the precincts of this delightful survival of former days.

The War of 1812 was not yet terminated. The British attack upon Washington was yet to be accomplished—with its capitol left in smouldering ruin. There was yet no Indiana, in fact, and the Indiana Territory over which Gov. William Harrison exercised a larger authority than has been held by any executive involved a vast expense of wilderness country, ever subject to the attack of Indian foes. The area now included within the present city of Mitchell was, at that period, partly in Knox and partly in Clark counties, the area which now includes the village and park being within the county of Clark.

Nothing, then, was quite like it is today. The costume of the time was that which we know as Colonial. Men attired themselves in colorful garments of woolen-stuff or brocade, with breeches reaching the knee. The hair was worn long, the ends twisted into a beribboned queue; or enclosed in a peruke. Not all the masculinity of the Territory affected this mode, to be sure, for the Pioneer adopted a more practical costume—of deerskin or coarse homespun fabric. Indiana's early population, which included folk in all walks of life, was more interestingly than congruously dressed.

The flag of the period bore fifteen bars, with fifteen stars upon its blue field. Purchases were made in pounds, shillings, and pence. What times, what manners, what customs must one conjure with to visualize the Indiana of that day!

Into this wilderness country, to the spot we now know as Spring Mill, came Ensign Samuel Jackson, Jr., with his wife, Hannah. This was in 1814. Ensign Jackson, a Canadian, had enlisted in the American cause, had participated in the bitter engagements about Lake Erie, had been wounded and invalided, and had sought to retrieve his health and fortune in the promising West.

With his family, Jackson erected a small residence in the little Spring Mill valley, set up a small log grist-mill near the mouth of Hamer's Cave, and began commercial relations with the few families of the vicinity.

At Bono a small settlement was under way. At Leesville, or Flinn's Fort, another pioneer village had begun. Salem was the nearest town of consequence, and it was a mere hamlet. The pioneers of the region, Southerners all, were for the most part intimates or associates of Daniel Boone, and had followed that doughty frontiersman from the Clinch and Yadkin country of Virginia and North Carolina. Some of them had tarried with him at Boonesborough, where their names may be found recorded with others of its founders.

The Wilderness Trail, at best, was a sorry affair. It was hardly competent for wagon traffic at any stage of its course. Streams had to be forded—in wet weather the road became a morass. Over this trail, on horseback and afoot, came the bone-and-sinew of Indiana citizenry. From Clarksville the



11. Restoration of the Montgomery Tavern—erected upon the site of the earlier structure.

tributary highway into this region was the "Buffalo Trace;" or, if the migrant came by way of Salt River and Harlan's Fort, the "Blue River Trace" led him through Harrison County to a junction with the former highway.

By special act of Congress President Harrison had obtained a means of rewarding those Canadian subjects who had sworn allegiance to the United States, and on Oct. 26, 1816, the President issued a patent (No. 9) which allotted to Samuel Jackson, together with extra pay, the three quarter-sections of land which comprised the area he had already occupied by "squatter's right."

For some reason which is not entirely clear, Ensign Jackson removed soon after to Columbia County, Pennsylvania. Upon March 3, 1817, he deeded his Indiana property to Cuthbert & Thomas Bullitt, "Merchants of Louisville." The quaintly worded deed of conveyance disposed of his "lands, houses, outhouses, edifices and buildings: together with his woods, trees, fences, gardens, and orchards." Under the changed ownership a new era began for Spring Mill, and it became a center of industry—a position which it held until long after the War between the States.

The Bullitt family, originally established in Languedoc, France, came to America following the revocation of the Edict of Nantes. With other French Hugenots they settled, first, at Port Tobacco, Maryland. This was in 1685. Thence the family removed to Virginia, where they became allied, through marriage, with the Washington and Harrison families.

In 1773, Capt. Thomas Bullitt was commissioned by Lord Dunmore to survey, for purposes of settlement, a "certain district in Virginia," which district was the area now occupied by the present city of Louisville, Kentucky. Capt. Bullitt is given historical credit for the first survey of that city, and Bullitt County, Kentucky, was later named for the family. In 1783, Alexander Bullitt removed from Virginia to Kentucky, occupying the thousand-acre estate, known as "Oxmoor," now contiguous to Louisville. His wife was the daughter of Col. William Christian, of historic association, and of Anne Henry, sister of Patrick Henry, of Virginia.

Cuthbert & Thomas Bullitt, who were the real founders of Spring Mill, removed from Virginia, to Louisville, in 1804. Cuthbert, the elder brother, had married, in Virginia, Ann Neville, daughter of Gen. Joseph Neville, a hero of the Revolution, and the surveyor of the Mason-Dixon line. Thomas Bullitt married, in Kentucky, Diana Moore Gwathmey, daughter of Owen Gwathmey, and Ann Clark—who was the eldest sister of George Rogers Clark. From "Niece Diana" many of the most important bits of Clark biography were obtained. She was his favorite niece, and his confident. It is said of her that she was "noted for her loveliness of person and character."

The early residences of the Bullitt brothers stood, originally, upon the upper terrace of the Ohio, overlooking that stream. The farmstead, which extended over much of the present city, included most of what is now the business district of Louisville, from the river-front to Broadway.

In the early records and historic documents Cuthbert & Thomas Bullitt are invariably spoken of as "the Merchants of Louisville," as though they were alone in that classification. Beside the purchase of land in that vicinity, they were among the first purchasers of lots in most of the newly laid out towns of Indiana and Kentucky. In Indiana, it has been found, they acquired a great number of the lots in Clark's Grant, entered many sections of land in southern Indiana, acquired around half the lots sold at Paoli, and were liberal purchasers of lots in Terre Haute. They were particularly interested, it appears, in establishing mills and other enterprises in these newly-fledged towns. For many years, and until quite recently, descendents of these early merchants lived in the vicinity of Spring Mill.

It should be understood that the Spring Mill settlement did not assume that name until a period subsequent to the Bullitt occupancy. Early records of the place speak of it as "Bullitt's Mills," and the various roads which were surveyed to the village always bore that name. Thus such roads became the Palestine & Bullitt's Mill road, The Salem & Bullitt's Mill road, etc. There were a number of these roads, most of them begun in 1817, which opened the place to patrons, for stage-coach travel, and for the delivery of mail by post-riders. On Sept. 10, 1828, the first actual post-office was established under the name of Arcole; named, presumably, for the locale of Napoleon's victory over the Austrians at that place, in Italy. Samuel Hopkins was the first postmaster of whom we have

record. This was during the administration of John Quincy Adams. It was not until Jan. 17, 1831, that the name was changed to Spring Mill, at which time Col. Hugh Hamer became postmaster. In 1835 the post-route included Spring Mill, Bono, Bedford, Springville, Martinsville, and Far West. In 1838 it comprised Charlestown, Blue Lick, Sturdevant's Store, Salem, Bono, Spring Mill and Bedford. John Newland was carrier during this period, and his original commissions are included among the documents of Spring Mill.

It appears that Samuel Jackson had opened a small quarry, about 1815, to provide material for the construction of a larger mill than was first thought necessary. The Bullitts, who had a vision of exquisite proportions, set about enlarging this quarry immediately after taking possession. As the first unit of their industrial village they planned the erection of the three-story stone grist-mill which has recently been restored. The Spring of 1817 found a force of skilled mechanics at work upon the structure. The size of the building, the walls of which are three feet in thickness, required an enormous expenditure of labor. Each piece of stone had to be quarried and dressed by hand. Immense timbers, capable of supporting the structure and of withstanding the vibrationstrain of the twenty-two foot wheel, and the ponderous burrs, were cut and dressed upon the premises. So large were some of these framing timbers that an entire tree was required to provide a single still or column.

The original framing timber was of oak, the floors were of ash, and the interior trim was of yellow popular. The beautifully executed doors and casements were of black walnut. The entrance door was adorned with panel work, with carved mouldings, and fan-light transom. The entire wall was laid up in mud. The overshot wheel was rotated by a prodigious stream of water, carried by a flume two feet high by four in breadth, the latter of hewed poplar timbers braced by wrought-iron supports.

In the restoration of this structure, which is probably unique in Indiana, only a small proportion of new material has been used. The window frames are original, though the sash are new. Most of the original framing material was intact. Much of the original machinery, too, has been preserved—the cogs and pinions fashioned from hard wood. The bearings

which supported the strain of the immense wheel were, strangely enough, of native stone. Some of these, still in existence, show slight indications of wear. The massive burrs, known as "French burrs," were brought over in sailing vessels, from that country, as ballast.

Upon the Spring Mill premises there is a deposit of Indiana limestone, identical with that sold under the name of "Indiana Limestone," and produced in the largest stone quarries in the world. It is probable that this pioneer mill, now 114 years old, represents the oldest existing exhibit of the use of this now famous building material. In this structure, however, it has been combined in random fashion with another limestone, now regarded as waste material, known as Mitchell limestone. After more than a century of exposure to the elements the walls exhibit no appreciable change in appearance or texture.

We have said that the pioneer families around Spring Mill Village were from Virginia and North Carolina. It came about, thus, that two distinct cultural elements were introduced into this section of Indiana. Spring Mill was, in effect, a bit of the Old South; combining the simple arts and customs of North Carolina with the more dignified manners and tastes of Virginia. In the mill, and in the two major residences as they formerly existed, the Virginian influence is felt. In the minor buildings, for the most part of log construction, the ear-mark of North Carolina is seen.

Among the pioneer families about Spring Mill were artisans of no mean ability. To add to the necessary force of workmen the Bullitts brought mechanics from Louisville. In charge of construction, and as manager of the enterprise, they had employed Uriah Glover, a Virginian, who was a skilled mechanic. A residence was erected for Glover and his family, and another for the Bullitts. The latter continued to maintain their Louisville residence; but occupied the Spring Mill quarters, from time to time, as occasion required.

The success of the new enterprise was immediate. It became necessary to provide for the business increase, and for the comfort of patrons, and a number of additional buildings were set up. Foundations of these structures, some of which served purposes as yet undetermined, are found in excavating upon the premises.

After seven years of occupancy by the Bullitts, the Spring Mill properties were sold to William & Joseph Montgomery, who were, likewise, merchants of considerable importance, residing in Philadelphia. The old deed, covering the transaction, is an interesting document. It transferred to the Montgomerys, in addition to the village property, which included "mills, houses, improvements, etc.," a total of 1440 acres of land, the whole representing a consideration of above \$20,000, the village area bringing \$13,000.

During the Montgomery ownership additional improvements were made, among which was the erection of a still-house, framed nine logs high, the logs forty feet long by thirty inches wide. The roof followed the same lines as that of the mill. A small tavern, too, was set up to minister to the modest needs of patrons. General improvements were carried out to make the place more attractive to customers.

The third phase of the life of Spring Mill, covering a period of nine years, was brought to a close by the death, in Philadelphia, of William Montgomery, and the property was again sold. Under date of June 11, 1832, Joseph Montgomery, as executor, conveyed Spring Mill and the adjacent land to Hugh & Thomas Hamer. The deed reads—"a certain tract or piece of land, and the merchant grist and saw mills thereupon erected, known by the name of the Big Spring Mills."

It is with this period of Spring Mill's existence that the oldest inhabitants of the vicinity are most familiar. Hamer's Mill, and Hamer's Cave have been a part of the tradition of the locality for almost a century. It has been difficult, in fact, to obtain evidence beyond the time when the dynamic and universally respected Col. Hugh Hamer was the dominant personage of the region round about.

Perhaps the best known of the early millers of southern Indiana was John Hammersley, an officer of a Pennsylvania regiment during the Revolution, who came to Indiana at an early date. Among the many early mills he conducted was that at Clifty Cave, where young Hugh Hamer served as his apprentice. It appears that Mr. Hammersley acted, for a time, as millwright at Spring Mill, though one William Wright was the first miller. He conducted a mill, also, at Bono, which was unique in that its machinery was attached to a boat, anchored in midstream.

It was through the influence of Mr. Hammersley that the Hamer brothers came to the vicinity. Before actually acquiring the property Hugh Hamer had acted in the capacity of miller and manager for the Montgomerys. His purchase involved an investment of \$7,000, to be paid in yearly installments to be derived from the proceeds of his labor.

With his wife, Elizabeth (Fitzpatrick) Hamer, Col. Hugh Hamer occupied the upper residence, so-called, while the brother, Thomas, moved his family into the lower residence. The brothers began at once to improve the property, remodeling the two residences and adding new structures to those already built. One of Col. Hamer's first concerns was to provide a schoolroom for the children of the community, and a teacher was provided and paid from his personal funds.

In those days Louisville was the chief buying mart, and it was, likewise, the nearest market for the disposal of lumber, grain, flour, pork, and whiskey—such commodities as Spring Mill provided. Since all southern Indiana roads were bad, it became necessary to provide a means of transportation equal to the emergency. Two "ox fleets," of twelve oxen each, were kept almost continuously upon the road between the two places. As a distinguishing feature the great ox-wagons and bows were painted a brilliant red, and the horns of the animals, highly polished, were topped by glistening brass balls. The oxen themselves were selected, most carefully, for their size and endurance. The Spring Mill ox-fleets thus became a colorful picture along the highway.

Col. Hamer, a lover of finely bred live-stock, had a pardonable pride in this respect. When elected to the legislature, where he served in both houses, it was then the custom to make the journey to the capitol upon horseback. Upon arrival there it was a part of the diversion of the early solons to engage in exhibitions of horseflesh and horsemanship. It was Col. Hamer's delight to prepare for these contests in advance, and from them he almost always emerged successfully.

During the proprietorship of the Hamers, Spring Mill became a center of social life, as well as maintaining its repute as a business center. To the place came many prominent people of that day, among the frequent visitors being Col. Richard W. Thompson, who began his legal and political career in Bedford. It is related that, upon the occasion of the first

visit of Gov. Jonathan Jennings, the family were much exercised over rumors respecting the irascibility of the Governor. The larder had been stocked with all the local delicacies, and the house had been as carefully furnished as was possible, for the place was then undergoing repairs. After passing the day without any notable rencounter, Col. Hamer escorted the Governor to bed. Arrived there, the Governor said—"Colonel Hamer, I want you to do me the small favor of tying my pillows together—I have been so accustomed to sleep on a bolster that I'm afraid, otherwise, my rest will be disturbed." He was assured that this could be easily seen to; but another whimsey suddenly seized him. "Just one other favor, Colonel," he said, "may I ask you to raise the windows, that I may have some fresh air?" "That I cannot do," replied the host. "for during the past week we have been repairing the house, and the windows have not yet been replaced."

Col. Hamer, as may be anticipated, was a great lover of sports, riding a horse skillfully and engaging in all the hunting expeditions of the neighborhood. During the early days of the village it became necessary to exterminate wolves and other animal miscreants which frequently came into the settlement quite fearlessly. The favored haunt of the wolf fraternity has since been known as Wolf Cave, and here, as at other caves on the property, wolves and bear were trapped as a matter of routine.

One wonders why the residence area of Spring Mill was so completely encompassed with stone walls and gates. It has been said that the original purpose was to provide a partial protection against wild animals, that some of these walls were merely to serve as a hindrance to water-flow from the hillsides, and that they were constructed to insure the necessary family privacy. All of these reasons, possibly, entered into the case; but, for a long period, they served the very useful purpose of excluding meandering hogs from the premises. Hundreds of these animals were allowed to run at large, at times, where they were fattened upon refuse from the distillery. The iron railing which tops the steps of the mill prevented the invasion of that structure by the roving animals. At the southwest corner of the building one may observe that the stone has been worn away by the bristling backs of many generations of the porcine tribe.

In the busiest days of Spring Mill a boat-yard was constructed on White River, perhaps a mile north of the village. Here flatboats were built, in great number, for the transportation of Spring Mill's products to New Orleans. The Louisville markets, sometimes over supplied, did not at all times absorb the maximum output of the place.

It can be said that there was no real let-up to the business activity of Spring Mill until the advent of the Ohio & Mississippi railroad, now the Baltimore & Ohio. After the establishment of Mitchell's Crossing, now Mitchell, the village became less and less important, though for long after this date (1859) the mill and distillery continued in active operation.

Upon the death of Hugh Hamer, in 1872, the place was sold to Jonathan Turley, who successfully operated both mill and distillery until sometime in the 80s. Eventually the one-time village was abandoned, after having witnessed the changes of more than a century, and became the property of the Lehigh-Portland Cement Company, who still utilize the water from Hamer's Cave for the Mitchell plant of the company.

Through the generosity of this company, and particularly through the interest held by Gen. Harry Trexler, Chairman of its Board of Directors, the site of Spring Mill village, with its surrounding area of approximately 400 acres, has been given to the State of Indiana for park purposes.

The Eccentric Mr. Donaldson

In the Spring of 1897 a trading-steamer landed off the Ayrshire coast. Among the few passengers it discharged was a grev-haired gentleman, approaching the nineties, who was returning to his native Scotland after fifty years of an enigmatic exile. During this half-century he had wandered about the Earth's four-corners, had sailed the seven seas, and had lived among the most primitive of people. Now, upon his return, he chose to spend the remaining brief span of his life, for some weird reason, within the shadow of his youthful haunts -vet not venturing into their precincts. For a few months he might have been seen each day, whether the weather were fair or foul, trudging over the brae-paths, enjoying again the familiar Scottish landscape. Sans greatcoat, or the usual protective covering against the elements, his head erect and his lithe limbs still capable of doing many miles in a day, this man walked. Then, one day, the sturdy Scotsman took to his bedprobably for the first time in his life, and for the last. After an illness of but three days the mortal remains of George Donaldson were laid to rest in the old Necropolis of Glasgow, overlooking the Clyde, and the city of his youth's heyday.

George Donaldson was born, it is thought, in the mill burgh of Paisley, contiguous to Glasgow. His youth was spent at the family residence in George's Square, Glasgow, the mansion later becoming the Crow Hotel. It is now the Merchant's Building. Young Donaldson became a well-known figure in Glasgow, in fact, throughout the whole of west Scotland. He possessed extraordinary intellectual attainments, his manners were the most polished, the family wealth (derived from large holdings in the slate industry, with quarries in Argyllshire) was equivalent to that of the most affluent in the city. He was a born sportsman and athlete; a member of the time-honored Lanarkshire Hunt Club, where he was known for his hard-riding proclivities, and for his skill as a huntsman.

What happened to upset the placidity of this young man's existence may never be entirely understood. The theories are various. It is certain that he was married in early life, and that the wife died soon thereafter. Whether his brief married

life was happy, or otherwise, we may only conjecture. In any event, he is known to have come to America while in his early thirties. Here he owned at various times, it is said, at least five estates—one of which was in Mexico. Upon these domains, which were invariably chosen for their natural beauty and seclusion, he lived the life of a true nature-worshipper—quite contentedly, to all appearances; but one may not fathom the human heart.



12. George Donaldson, of Glasgow, Scotland, owner of the Shawnee estate.

A few months after the surrender of Lee—in September, 1865, to be exact—a wayfarer one day accosted the proprietor of "Lynn's Saw & Fulling Mills" as he descended the winding road which led to the "mills" near the mouth of Lynn's Cave. "Can you tell me who owns these properties?" the stranger inquired. "I do," was Mr. Lynn's reply. "Would you care to sell?" was the next venture. "I would consider it," said Mr. Lynn. The next day, since the stranger seemed in a flurry to close the affair, the property of James C. Lynn became that of George Donaldson, "a subject of Her Brittanic Majesty, Victoria First."

The newcomer ensconced himself in the six-room frame residence formerly occupied by Mr. Lynn, christening it "Shawnee Cottage." Here he assembled the fitments necessary to accord with the nicety of his habits, set up his library of cherished volumes, and lined the walls with the trophies and mementos of his expeditions into strange lands. In one room the platform-grave of an Indian chief occupied the whole of the floor space. The wonder was that there was room, anywhere, to move.

In front of the cottage he laid out a small formal garden, the planting comprising shrubs and flowers of Scottish habitat. To the rear of the cottage he erected a queer box-like structure, the elevated upper floor of which overlooked the great gorge which extends from Donaldson's Cave, providing a vista which included the greater part of the property. During the time that George Ranie, a nephew and namesake of Mr. Donaldson, shared in the hospitality of Shawnee, the upper floor of this "Tower Room" housed the entomological collection of Mr. Ranie, which included butterflies and beetles, both exotic and native, in great number.

Upon the Shawnee property were most unusual exhibits of Mr. Donaldson's idiosyncrasies. There were strange "wishing bowers," where he followed the conceit of engaging his child-guests to make wishes for the most colorful and impossible of futures. Upon the bluff above Donaldson's Cave (known during his occupancy as Shawnee Cave) was his "Pulpit Rock," from which one might obtain a pleasing panorama of the valley below. Near the small stream which has its exit from the cave was "Donaldson's Seat." This was a rude stone bench, under which, for some strange reason, he had deposited

the bones of some long defunct Indian. Here it was his custom to sit and meditate, or read, alone; or to converse with his few chosen friends.

Mr. Donaldson, during his stay at Shawnee, rarely ventured into Mitchell. When it was necessary to go he invariably walked, swinging along at an unconscionable pace. His mail he had delivered by some small boy in the vicinity. Horses he invariably kept, but rarely used them except for his favorite sport of "steeple-chasing," which he performed upon a course which he had laid out upon the premises.

At the Big Spring Church, where he was a regular attendant, Mr. Donaldson was accustomed to appear, each Sabbath, ensconced in a wooden dugout canoe, drawn by his favorite saddle-horse. This sled-like vehicle he used at all seasons, and in all weathers, perhaps adapting it from some primitive conveyance he had seen on his travels. When funds were needed for the church he was almost the sole contributor. When the neighbors' larders ran low or medical attention was needed, he was quick to anticipate the necessity. One of Mr. Donaldson's choice whimseys was to stand Godfather to babies in the vicinity; at which time he contributed gold-pieces for the honor of naming the wee bairn. These names were in keeping with the man's eccentricity, as witness that given the daugh-



13. "Shawnee Cottage", the home and museum of George Donaldson.

After a memory sketch by William Lynn.

ter of his devoted caretaker, whom he christened Faanna; or that which he bestowed upon one of the Lynn tots, Owassa.

The affection which this man held for children was delectable. In Mitchell, upon occasion, it was his custom to produce amateur theatricals, clipped and simplified by his own hand in accord with the youthfulness of the cast. The costumes he often designed, and he was usually sole manager and producer.

It would seem that Mr. Donaldson would have been revered among his friends, and so he was; but these were reckoned among those who understood his eccentricities, and forgave them; or were of that lesser group who were of his own intellectual stamp. At best, his peppery temper was ever near the surface. He had no patience whatever with Nature-spoilers who uprooted or broke off his young trees for walking-canes, who trod upon his wildflowers, or who considered his property as a community game-preserve. To his caretaker instructions were issued to treat these with near violence.

One never knew when a strange fit of wanderlust might attack the laird of Shawnee. At such times he suddenly packed his baggage and disappeared—to be gone weeks or years. Upon some of these journeys he repaired to some other of his estates; at other times he went into the far West, or into the North country, to satisfy his penchant for big-game hunting. During these hunting ventures he lived, often, with the native tribes—sharing their life and pursuits.

With a life so varied and interesting, it is impossible to complete the story in a few paragraphs. The accomplishments and eccentricities of George Donaldson form an intriguing chapter in the story of Spring Mill. Rather, it is a story in itself, with many chapters. One may discover upon the precincts of the Shawnee property many reminders of the man; the Wilson monument which he set up to commemorate the noted Scottish ornithologist, himself a native of Paisley, whose life was strangely parallel with his own. To Wilson, it is said, he attributed the development of his own fondness for Natural History. The Livingstone cairn is another tribute, to David Livingstone, a life-long friend and fellow-traveler. Certain straggling plants about the place awaken a thought of the man who transferred them from some distant abode. One may rarely discover a hoary gopher-turtle, whose forebears were

brought from the South, or some other animal form not native to the region.

A few clippings from newspapers printed after Mr. Donaldson's death, and condensed for our purpose, will serve to terminate this chapter.

"Mr. Donaldson had, in his day, traveled over a considerable portion of the globe, visiting the South Seas, Micronesia, the Samoan group, the Tongas, the Navigators, and Fiji. He was so familiar with Polynesia that, when he conversed upon subjects connected with that ocean world, we felt that even Ellis's work on Polynesia, interesting as it is, seemed to be scarcely more than an alphabet. He has spent many years among the savage Indians of North America, and was known to almost all the noted trappers, hunters, and guides of that continent. He has personally surveyed all the portions of Europe which are of interest. He was a regular contributor to the Glasgow press, and to newspapers and periodicals in two continents, upon subjects pertaining to Natural History. He had a considerable talent as an artist, illustrating many of his published articles. A pursuit in which he was much interested was the exploration of the cavern regions of North America, having visited most of these which are important."

The Trees of Spring Mill

The visitor to Spring Mill is asked to remember that most of the 1100 acres of this park is still in its primitive condition, and that it is possible to find, somewhere upon the premises, a representative of almost every tree, shrub, and flower which is native to Indiana. For this reason it is inexpedient to devote undue space to a detailed description of the several species.

Donaldson Woods, under which name that particular portion of the park's area has long been known, is one of the very few primeval forests remaining in Indiana. It is because of this fact, largely, that Spring Mill became a state park—the 200 acres of this tract forming the nucleus of the much more extended precincts of the present park.

In Donaldson Woods it is possible to observe the complete cycle of forest growth, maturity, and decay—since, here, the hand of man has not intruded upon the orderly scheme of natural forest development. In the area which has been added to this tract such tree cutting as has been carried out has been accomplished with an intelligent appreciation of approved forestry practice; so that, for the most part, only matured trees, in which decay had been set up, have been removed. That small portion which has been under cultivation is being allowed to reforest through natural seeding processes.

Upon the Donaldson tract are some of the largest tulip trees, or yellow poplars, in the state. Unquestionably, the finest oaks to be found in any of our state parks may be seen here. Along Trail 3, which has been called the "Big Tree Trail," one may best observe these hoary monarchs of the original forest. Many of the trees, here, have arrived at their maximum stage of growth; while others, having paid their last debt to Nature, lie prone upon the Earth which nourished them.

To wander through the shadowy recesses of this area is to catch a glimpse of infinity. There are no sounds except those of Nature's making, and there is nothing to remind one of the world of Man. In their full foliage one may see the sunlight only as it is filtered through a vignette of interlacing branches.

One may conceive, here, how easily possible it was for Man, in the dead days of long ago, to imagine such forests peopled by creatures of supernatural origin, akin to the Gods. It does not seem possible that trees indigenous to this region may arrive at such glorious proportions and one is led to imagine himself among the Brobdingnagian flora of the western coast.

Along the cavern evolved streams of Spring Mill, and so they all are, tall sycamores congregate—so interesting in the splotched whiteness of their bark, and so intimately associated with the song and story of Indiana that one wonders whether they are not more competent to serve as our most representative tree than even the lordly poplar.

Trail 2, particularly, displays the full beauty of the beeches. Along this trail they have arrived at their best state of development. No tree is more easily identified than this, and none is more worthy of an intimate acquaintance. It is among the most beautiful of trees, and the rhythmic arrangement of its delicate branches is a delight to the artist. Their glossy leafage, in Spring, is so compact that all young growth around the tree must die for lack of sunlight. In the Autumn, after the first frosts have come, the display of brilliant red and russet coloring is approached by no other tree.

Each of Spring Mill's trails has been planned for a specific purpose; but each leads one through continuous forest for its entire length—so that it is possible to follow their complete course through uninterrupted woodland.

In early Spring the hillsides are glorified white and rosepurple drapes of dogwood and redbud. In this region these beautiful trees have escaped the usual ruthlessness of unthinking motorists, who have stripped the roadsides of most localities of these formerly abundant species.

Where the hill slopes are not too much shaded, the wax-leaved spicewood grows so profusely that it seems to occupy every available foot of space. It has been so abundant in this region that it provided the name of one of the townships of Lawrence County. The leatherwood, too, has contributed its name to the geography of the county, where one of the principal streams bears the name of this shrub. It may still be found at Spring Mill, though in many localities it has become quite extinct. Even though little known, it is a most interesting and unusual addition to the landscape. Its leaves are

leather-like in quality, and its bark so tenacious that it served the Pioneer as a source of supply for thongs to mend harness, and for other utilitarian purposes.

Very few people are familiar with the cucumber tree, which is so rare in Indiana as to be found, now, in a very few localities. This cousin to the magnolia bears a flower which much resembles the tulip, and its fruit reminds one of the garden vegetable from which it derives its name.

To know the trees by name is to be the possessor of a now unusual accomplishment; but to know them by their scientific names, not to speak of having an acquaintance with the meaning of these, is a desideratum achieved by the very elect. To most of us the mastery of such names seems a mere waste of time, but the compensation for one's pains is by no means small. To discover that the Latin name of the walnut is Juglans, for instance, does not register overmuch; but to know that this word means "Jove's acorn" sets up a stimulated interest. In the case of the Magnolia, we may learn that the name is in honor of a notable French botanist, Pierre Magnol; being yet unconscious that we have already used the scientific name of the tree.

In the case of many trees which are indigenous to America the Indian name is still retained, as in the hickory, catalpa, persimmon and pawpaw.

To many pioneers the white-oak was known as the "pigeon tree," in consequence of its having been a favored roosting place of these once numerous birds. In like fashion the redbud, which has a variety of names, was sometimes called the "fish bush," its coming into full bloom corresponding to the spawning season of the finny tribe. The swamp-willow became the "pussy willow," for obvious reasons. In some parts of Indiana the red elm is still known as "hub elm," through its former use in providing material for turning this portion of a wagon wheel.

Tree relationships, too, offer a pleasing adventure in this branch of nature study. The yellow poplar, or tulip tree, one discovers to belong to the magnolia family. The persimmon is a near relative of the ebony, the redbud is cousin to the locust, and the sassafras is of the laurel tribe. The ash, though we may hardly believe it, has the same family tree, or is a tree of the same family as the olive.

It is said that Mr. Donaldson, in his zeal to improve the surroundings of Shawnee Cottage, introduced here a variety of trees and shrubs native to Scotland. His garden, we know, was almost solely of Scottish flowers and shrubs. Certain alien trees in the vicinity have probably escaped from Mr. Donaldson's original planting—just as the hillsides of the adjacent area have become mantled by creeping-periwinkle which escaped from his garden. It will be interesting, of course, to determine the nature and extent of this transferred flora. Many trees, shrubs and flowers which we assume to be native to Indiana are not so in reality, but have been brought here by human or other agency, sometimes from great distances.

Near the small spring-house, at Spring Mill Village, is one of the largest black-willows in Indiana. This was planted by Col. Hugh Hamer some seventy-five years ago. Many of the willows of other species, which one sees along the valley streams, are descendents of trees which were planted here during the early days of the village.

During the first days of research at Spring Mill mention was often made of the "peafowl" trees of the place. This unusual addition to the local flora became less of an enigma when it was discovered that the group of black-walnuts, which fringe the garden site, were habitual roosting places of the considerable flock of peafowls which were always kept about the place. Upon cold mornings, it is said, it became frequently necessary to render first aid to these birds, whose spreading tails became frozen fast to the limbs of the trees.

. The Wild Flowers of Spring Mill

In early Spring the wild flowers seen along Trail 1, which follows the stream-course of the Hamer and Donaldson branches of Mill Creek, present an enchanting picture. This is a wild flower trail of the first importance, insomuch that it has been planned with the avowed intent of providing an easy access to the retreat of these woodland beauties. It would seem that every variety known to Indiana was here displayed, and the exhibit is as comprehensive, probably, as may be found in any of our state parks. Even those forms which are rare or extinct, elsewhere, have been permitted to grow, undisturbed, in this area.

Among the very first flowers to bloom here is the Spring Beauty, whose delicate pink blossoms envelop the massive detached rocks about the trail in a veritable blanket. The quizzical Dutchman's Breeches appear, here, in extensive colonies, upon either side of our path. The name applied to them in some localities, that of Ear Drops, is most appropriate—though the style of pendulous ear ornament which they resemble belongs to the long ago.

Even where the path at our feet has been cleared of vegetation, the wax-blossomed Bloodroot intrudes itself. The yellow Adder's Tongue, or Dog Tooth Violet neighbors with the Bloodroot here; and the Hepatica, which might be properly called the American Shamrock, pushes up its delicate lilac flowerets, from the leaf-mould, before its interesting leather-like leaves may be seen. The green-and-purple Jack-in-the-Pulpit is a familiar early visitor, and seems a nearer relative to the refined Calla Lily than does its other kinsman, the plebian Skunk Cabbage, also in evidence, whose breath savors of mustard and raw onions. The entire Trillium family seems to be represented here. In the opinion of many botanists it is the queen of wild flowers.

It would be tiresome to enumerate the wild flowers of Spring Mill, and next to impossible. Their endless variety follows the changing seasons through. It is enough to say that it would be quite nearly possible to carry along a check-list of the wild flowers native to this region of Indiana with the assurance

that most of them might be found, somewhere, within the park's precincts. The exquisite display of posies along Trail 1 is worthy of a special visit, or of repeated visits throughout the year.

One should not neglect to note the elaborate showing of ferns, representing many distinct varieties, which are best seen along the hillsides which fringe the southern margin of the streams. Upon the perpendicular rock faces, exposed along the trailsides, one may find, too, most interesting specimens of moss, and of rock plants and lichens, which in some places completely enshroud the rocks to which they are attached.

It is not possible to properly appreciate the wild flowers without giving them some of our time and interest. Many visitors complain that they are unable to identify the various flowers from the usual books upon the subject, and for the purpose of helping such, in this difficulty, they are referred to two excellent books appropriate to the purpose. They are the "Wildflowers," of Neltje Blanchan; and for a more comprehensive study, the "Fieldbook of American Wildflowers," of F. Schuyler Matthews.

It is conceivable that one may possess an over-weening desire to pluck the wild flowers. It should be remembered, however, that unlike the hardy garden flowers, these fragile beauties wither the moment they have been pulled, and are fast becoming extinct where this practice has been followed. Children, particularly, should be taught that wild flowers are to be enjoyed—not destroyed, and that the only reason for their abundance in our state parks is because the Department of Conservation has here protected them.

The Birds of Spring Mill

So extensive and varied is the bird life of Spring Mill that it seems impossible to believe that this was formerly the home of many bird families not to be found here at the present day. One may imagine, and it is quite true, that the place was formerly an extensive habitat of the Wild Turkey. It was a notable resort for this near-extinct bird—long after it had disappeared from most other localities. The Passenger Pigeon, too, frequented this region, appearing in such numbers as almost to darken the sky. The Ivory-billed Woodpecker, which was among our largest and most beautiful birds, has not been long extinct here; in fact, it has been doubtfully reported from the vicinity in recent years.

These extinct, or near-extinct birds, are so closely associated with the life of the Pioneer that it is quite essential to know something about them. One may consult Audubon, and Alexander Wilson, for the most complete and interesting accounts of these martyrs to civilization.

Upon the first migration of birds, in the spring, Spring Mill becomes a center of bird activity. The place has been so long a sanctuary for the feathered tribe that its annual bird visitors appear to realize that their welcome is assured. To be awakened by the song of birds seems poetical enough; but unless one is a sound sleeper, indeed, the spring chorus here precludes any possibility of early morning rest.

The Cardinal is one of the birds which does not appear to migrate, and he may be seen here throughout the year. The exquisite gift of song which this bird possesses is not held by the male alone, for the female is also a charming vocalist. The Mocking Bird, that prince of songsters, which Sidney Lanier calls the "heavenly bird," is resident at Spring Mill. Though more northern sections of Indiana see him only in warm months, and rarely, he may be found here at all seasons.

Bird habits, and attributes, are much like those of human beings. They are shy and modest, or obtrusive and quarrelsome, much as the rest of us. About the village, one may feed the wee Chipping Sparrow from one's hand, if sufficiently patient to establish a friendly relationship with it. Here the



14. Mill office and nursery in Winter.

tiny Goldfinch is a daily visitor, and they may be seen bobbing about the place in search of seeds. The Phoebe, whose queer, plastered nests are found about every cave entrance, becomes a near pest about the village, where it intrudes its nest under projecting eaves, and even inside buildings which are visited daily.

Such neighborly birds as the Catbird, Robin, and Jay, one would expect to see in even the most frequented portions of Spring Mill. It is along the trails, however, that one may best observe the habits of the less known varieties. Here may be found almost all the birds native to Hoosierdom—excluding, of course, the lake-frequenting water fowl. Even these are occasionally seen, and the Wild Ducks, the Coot, the Great Blue Heron, and, rarely, the Loon, drop in for brief visits. The Little Green Heron, to be sure, is native to the place.

At night, almost anywhere within park limits, the Whippoorwill, the Night Hawk, the great Barred Owl, and the little Screech Owl, may be heard in their variously toned, uncanny excuses for song. In the daytime it is sometimes possible to see these night birds; but only through accident, or when one is accustomed to search for them, and knows where to look.

About the stream canyons one often discovers the nest of the Turkey Vulture, or common Buzzard. The young are most interesting creatures—downy yellow-white grotesques; but it is well to observe them through a field-glass, or to be sure that the fond parents are away from home, before one ventures within range of possible unwelcome receptions.

It is delightful enough, to be sure, to form more intimate acquaintanceship with the birds one is most familiar with. It is a fond adventure to follow one of Spring Mill's delightful trails, in early morning, field-glass and bird-guide in hand; with the certainty that, unless well-grounded in a knowledge of bird life, one may discover birds never met with before.

To the avowed bird lover, then, this delightful resort of our feathered friends has a very great appeal. Its exhibit of bird life, at its best, is not the least of Spring Mill's many attractions.